

REMARKS

Claims 1-31 are pending in the application. Claims 1-31 were rejected. Claims 1, 25, and 28 are being amended by the present amendment. No new matter is introduced by way of these amendments.

Claims 1-31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gillon et al. (U.S. 5,838,927) ("Gillon") in view of Christensen et al. (U.S. 5,555,377) ("Christensen").

Claim 1 as now amended recites,

a method for optimizing compression efficiency comprising:
filtering protocol-specific header and control information of a
protocol data unit . . . selecting a state of data link compression . . .
to optimize compression efficiency; and associating the selected
state of data link compression with the protocol data unit to enable
or disable a compression process adapted to compress protocol
data units in an adaptive manner.

In contrast to Applicants' invention as recited in amended claim 1, Gillon provides a system having a continuously running compression stream. The continuously running compression stream receives data when a compression unit in communication with the continuously running compression stream detects a data packet with a content header that indicates that the data is compressible (col. 5, lines 52-56).

As illustrated in FIG. 4B, Gillon discloses a separate data stream 408, compression stream 410, and encryption stream 412. If data in a data packet in the data stream is determined to be compressible (col. 5, lines 52-56), the data packet is attached to the compression stream, which goes through a compression process that continuously compresses and transmits the data. As stated by Gillon in col. 6, lines 26-27, in the compression stream, compression occurs continuously, and not simply at times t1, t2, t3 and t4, which are indicated in Fig. 4B. Data begins compressing at time t0 as soon as the compression unit determines that the data is compressible. Data continues to be compressed at and between times t0, t1, t2, t3, and t4. By continuously running the compression stream, Gillon is able to avoid inherent latency in data transmission (col. 6, lines. 26-37).

Thus, because Gillon is avoiding inherent latency, Gillon does not suggest disabling the compression process or providing a mechanism that can disable the compression process. To do

so would be to make the Gillon compression process discontinuous, which would not avoid inherent latency in data transmission. Since Gillon's compression process is continuous, "associating the selected state of data link compression with the protocol data unit to enable or disable a compression process," as recited in Applicants' claim 1 as now amended, is directly contrary to the operation of the compression process disclosed by Gillon.

Although Gillon does not disclose a compression process that is disabled, for reasons just described, the Office Action cites Christensen as a reference that does. Christensen provides a system that enables compression based on a predetermined threshold of network activity (col. 4, lines 52-54). Once the predetermined threshold of network activity has been exceeded, an interrupt is sent to a protocol stack (col. 4, lines 52-60). The protocol stack then enables compression as a result of the increased network activity. Therefore, Christensen enables compression based on network activity (col. 5, lines 29-33). Thus, for reasons presented in reference to Gillon and Christensen, one of ordinary skill in the art would not combine the system of Gillon with the compressor of Christensen.

A substantial portion of the remarks above were previously presented in the Amendment filed on March 10, 2005. In the Response to Arguments section on pages 2 and 3 of the present Office Action mailed May 19, 2005, Examiner responded to the previously presented remarks. In particular, on page 3, part 5 of the present Office Action, Examiner submits that "Christensen was only used to show that 'selectively controlling a state of a compression algorithm' was well known in the art at the time of the present invention." In the paragraph bridging pages 8 and 9 of the present Office Action, the Office Action states that "having the ability to enable a compression process to optimize compression efficiency also suggests having the ability to disable a compression process to optimize compression efficiency."

Applicant respectfully submits that this statement, whether true or not, does not provide motivation for combining Gillon's system, which employs continuous compression, with Christensen's compression process, which can be enabled or disabled, albeit for a purpose different from the Applicants' purpose. Even if selectively controlling the state of a compression algorithm was known at the time, one of ordinary skill in the art would not have modified Gillon's continuously running compression process to use Christensen's selectively controllable compression algorithm, for reasons presented above. However, below, Applicants present

arguments further supporting this statement, but first provides basis for the arguments by referencing MPEP 2143.01 (“Suggestion or Motivation to Modify the References”).

As provided in MPEP 2143.01, there must be some suggestion or motivation to modify the references. MPEP 2143.01 sets forth multiple tests, including: (a) the prior art must suggest the desirability of the claimed invention, (b) where the teachings of the prior art conflict, the examiner must weigh the suggestive power of each reference, (c) fact that references can be combined or modified is not sufficient to establish prima facie obviousness, (d) fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish prima facie obviousness, (e) the proposed modification cannot render the prior art unsatisfactory for its intended purpose, and (f) the proposed modification cannot change the principle of operation of a reference. The letters (a)-(f) associated with the tests are not found in MPEP 2143.01, but they are used herein for reference purposes. Each of the lettered reasons will be addressed in turn below.

With regard to test (a) (“prior art must suggest the desirability of the claimed invention”), neither Gillon nor Christensen suggests the desirability for optimizing data compression by enabling or disabling a compression process. Gillon teaches away from such a technique, evidenced by disclosure of a continuous compression process, and Christensen enables/disables compression as a result of exceeding a threshold of network activity (i.e., enabling/disabling does not optimize compression). Thus, neither reference alone or in combination, suggests desirability for optimizing data compression by enabling or disabling a compression process.

With regard to test (b) (“where the teachings of the prior art conflict, the examiner must weigh the suggestive power of each reference”), Gillon’s continuously running compression process conflicts with Christensen’s compression process, which can be enabled and disabled. Therefore, the suggestive power of each reference must be weighed. Since Christensen is only being used to show that, “‘selectively controlling a state of a compression algorithm’ was known at the time of the invention,” as stated in part 5 of the present Office Action, Applicants respectfully submit that Gillon’s continuously running compression process weighs more heavily. Thus, for reasons presented above with respect to the term “continuous,” the combination of Gillon and Christensen fails test (b).

With regard to test (c) (“fact that references can be combined or modified is not sufficient to establish prima facie obviousness”), Applicants submit that this is the case in terms of combining Gillon and Christensen; therefore, test (c) fails.

With regard to test (d) (“fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish prima facie obviousness”), Applicants again respectfully submit that this is the case in terms of combining Gillon and Christensen; therefore, test (d) fails.

With regard to test (e) (“the proposed modification cannot render the prior art unsatisfactory for its intended purpose”) and test (f) (“the proposed modification cannot change the principle of operation of a reference”), Applicants respectfully submit the following.

Combining the enabling and disabling compression process disclosed by Christensen (Fig. 5) and the continuously running compression stream of Gillon changes the basic operation of the system disclosed by Gillon. Such a combination would also cause the Gillon system to fail for its particular purpose, as it would add inherent latency in data transmission. Moreover, such a combination would require modification of the Gillon system beyond simply replacing its compression process with a compression process that can be enabled and disabled. In particular, (i) Gillon’s continuously running compression stream would have to be modified to be discontinuous to account for non-compressible protocol data packets being added to the compression stream of Fig. 4B of Gillon (change in basic operation), (ii) Gillon discloses (col. 5, lines 52-56) that only compressible protocol data packets are added to the compression stream (change in basic operation), (iii) allowing the Gillon continuous compression process to be enabled and disabled would add inherent latency to the data transmission (failure for its particular purpose), and (iv) a process that associates states of compression would have to be added to the Gillon system in addition to the Christensen enabled/disabled compressor (modification).

Therefore, Applicants respectfully submit that tests (e) and (f) fail.

Because MPEP 2143.01, tests (a)-(f) as presented above, fail, Applicants respectfully submit that the combination of Gillon and Christensen fails to achieve the basic requirements of a prima facie case of obviousness. Accordingly, Applicants respectfully submit that the rejection of claim 1 under 35 U.S.C. 103(a) should be withdrawn.

For at least the same reasons, dependent claims 2 -12 should be allowable under 35 U.S.C. 103(a).

Independent claims 13, 25, 28, and 29 include similar limitations as claim 1 and should be allowable for similar reasons as described above.

For at least the same reasons, dependent claims 14-24, 26-27, and 30-31 should also be allowable.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims (claims 1-31) are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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